

The diagram illustrates the internal architecture of a node (400). The components and their connections are as follows:

- 410 NETWORK MANAGEMENT COMMS.**: Connected to the external network and internal control blocks.
- 420 ROUTING AND RESTORATION CONTROL S/W**: Connected to 410 and 430.
- 430 OPTICAL PATH CONTROL S/W, LINK MANAGEMENT PROTOCOL**: Connected to 410 and 420.
- 440 SWITCH**: The central switching element, connected to all other internal components.
- 450 AMP** (Left): Amplifier for the left input signal.
- 460 MUX** (Left): Multiplexer for the left input signal.
- 470 ATT./COMP** (Left): Attenuator/Compensator for the left input signal.
- 480 DEMUX** (Left): Demultiplexer for the left input signal.
- 480 DEMUX** (Right): Demultiplexer for the right input signal.
- 470 ATT./COMP.** (Right): Attenuator/Compensator for the right input signal.
- 460 MUX** (Right): Multiplexer for the right input signal.
- 450 AMP** (Right): Amplifier for the right input signal.
- 500 ELECTRICAL REGEN**: Electrical regenerator connected to the switch (440).

The diagram shows bidirectional data flow between the switch (440) and the input/output blocks (450, 460, 470, 480). The label "ADD/DROP" is positioned below the switch, indicating its function in the network.

FIG. 2, PRIOR ART, OVERALL SCHEMATIC VIEW OF A NODE FOR USE IN THE WAVELENGTH ROUTED MESH NETWORK OF FIG. 1A OR 1B.

FIG. 3

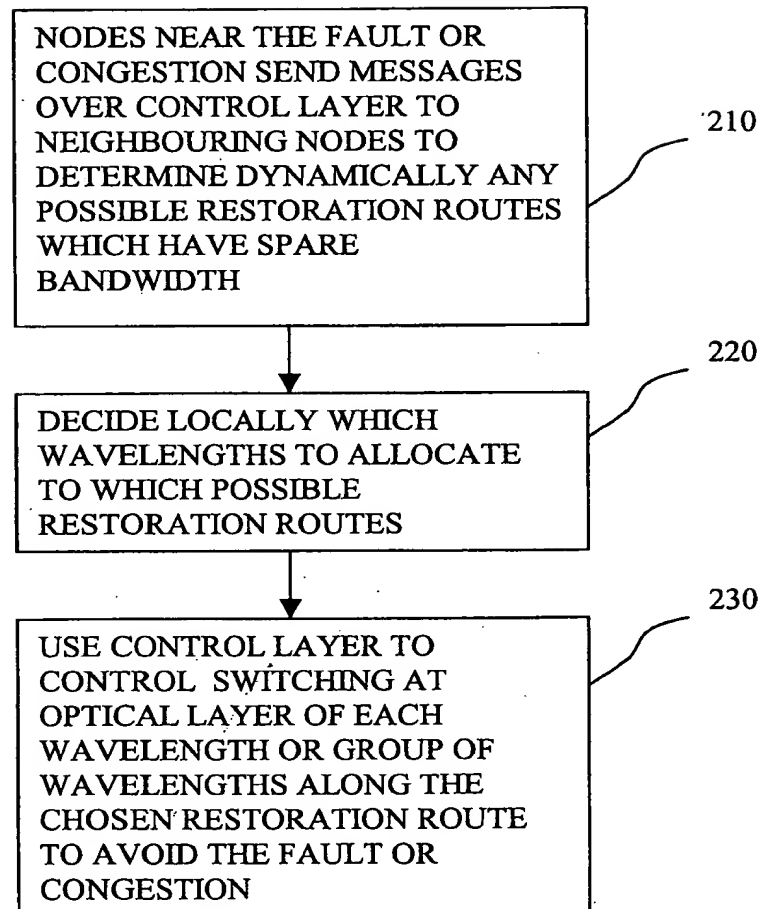


FIG. 4

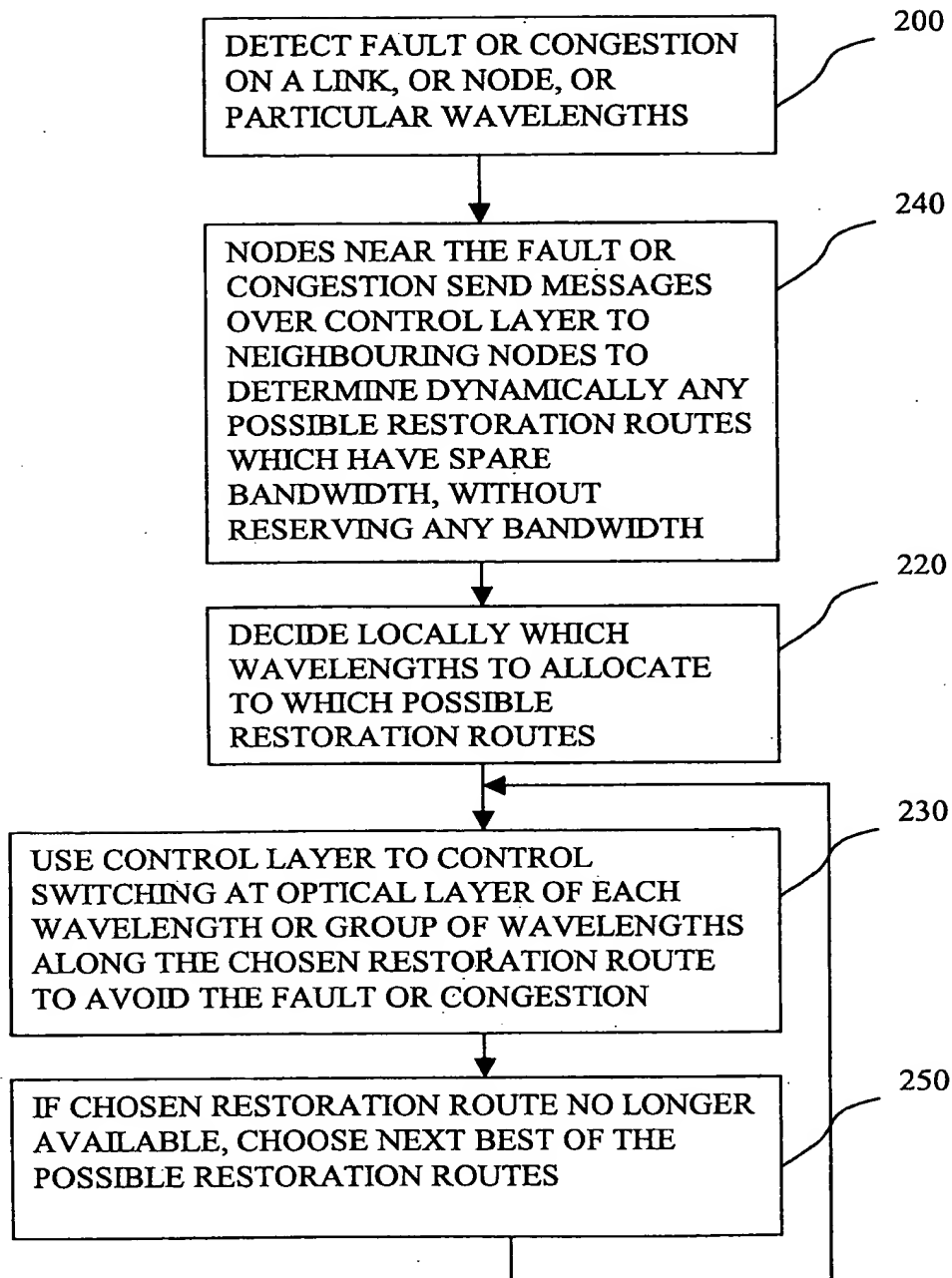
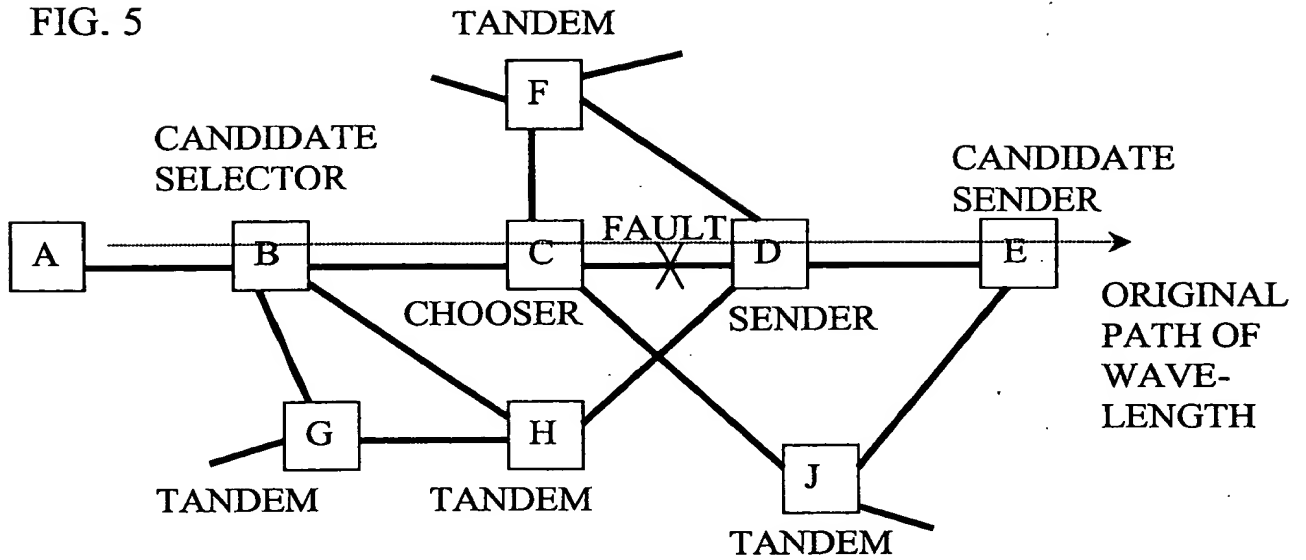


FIG. 5



ROUTE	SPARE WAVE-LENGTHS	DISPERSION	LOSS	SNR
ABGHDE	BG=3 GH=4 HD=7	BG=10 GH=5 HD=2	BG=1.3 GH=4.1 HD=2.3	BG=4 GH=3 HD=2
ABCFDE	CF=1 FD=10	CF=1 FD=3	CF=4.1 FD=3.0	CF=5 FD=10
ABCJE	CJ=4 JE=3	CJ=4 JE=3	CJ=1.1 JE=3.2	CJ=4 JE=3
ABHDE	BH=1 HD=2	BH=5 HD=6	BH=2.2 HD=4.3	BH=4 HD=5

FIG. 6

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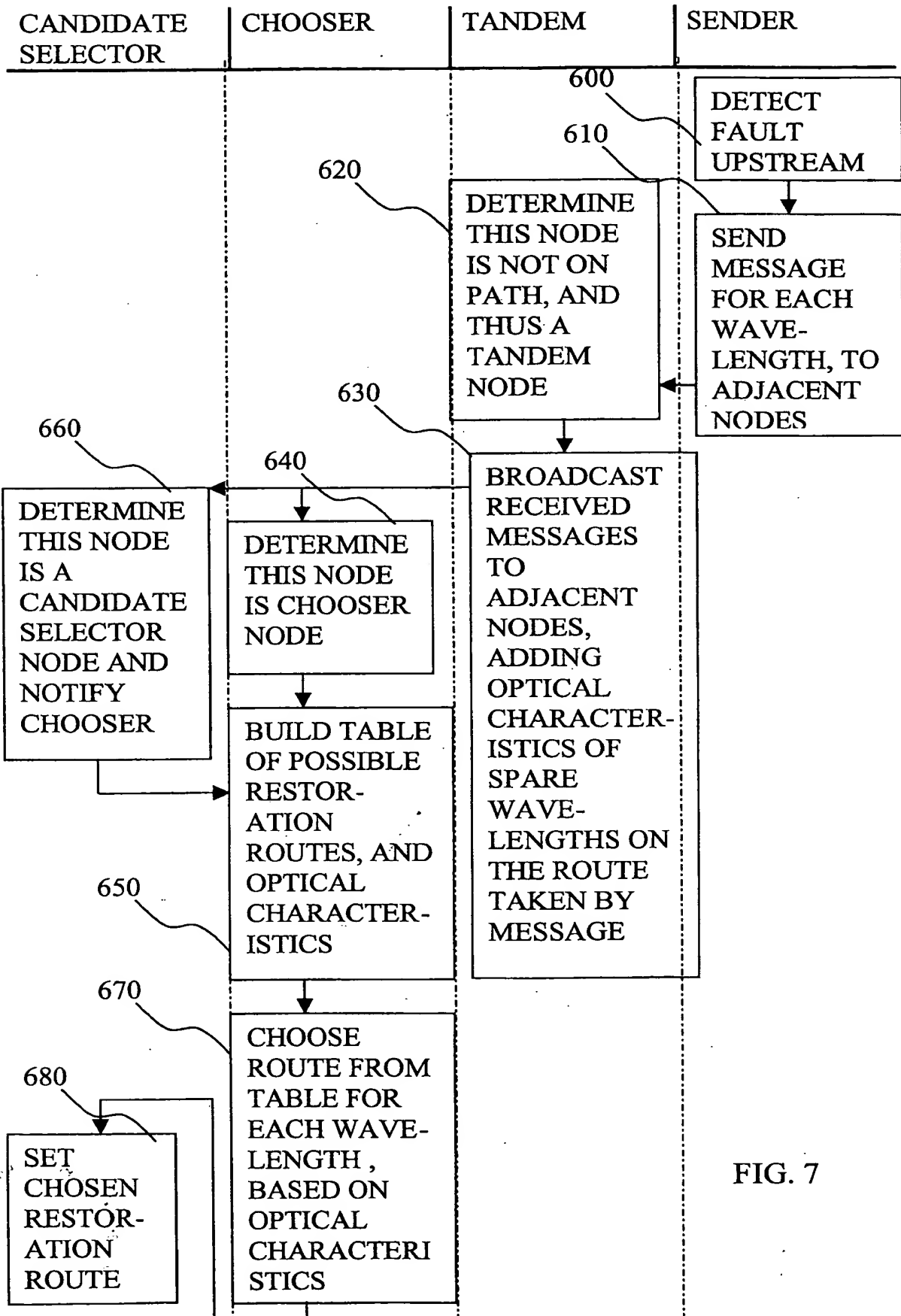


FIG. 7

FIG. 8

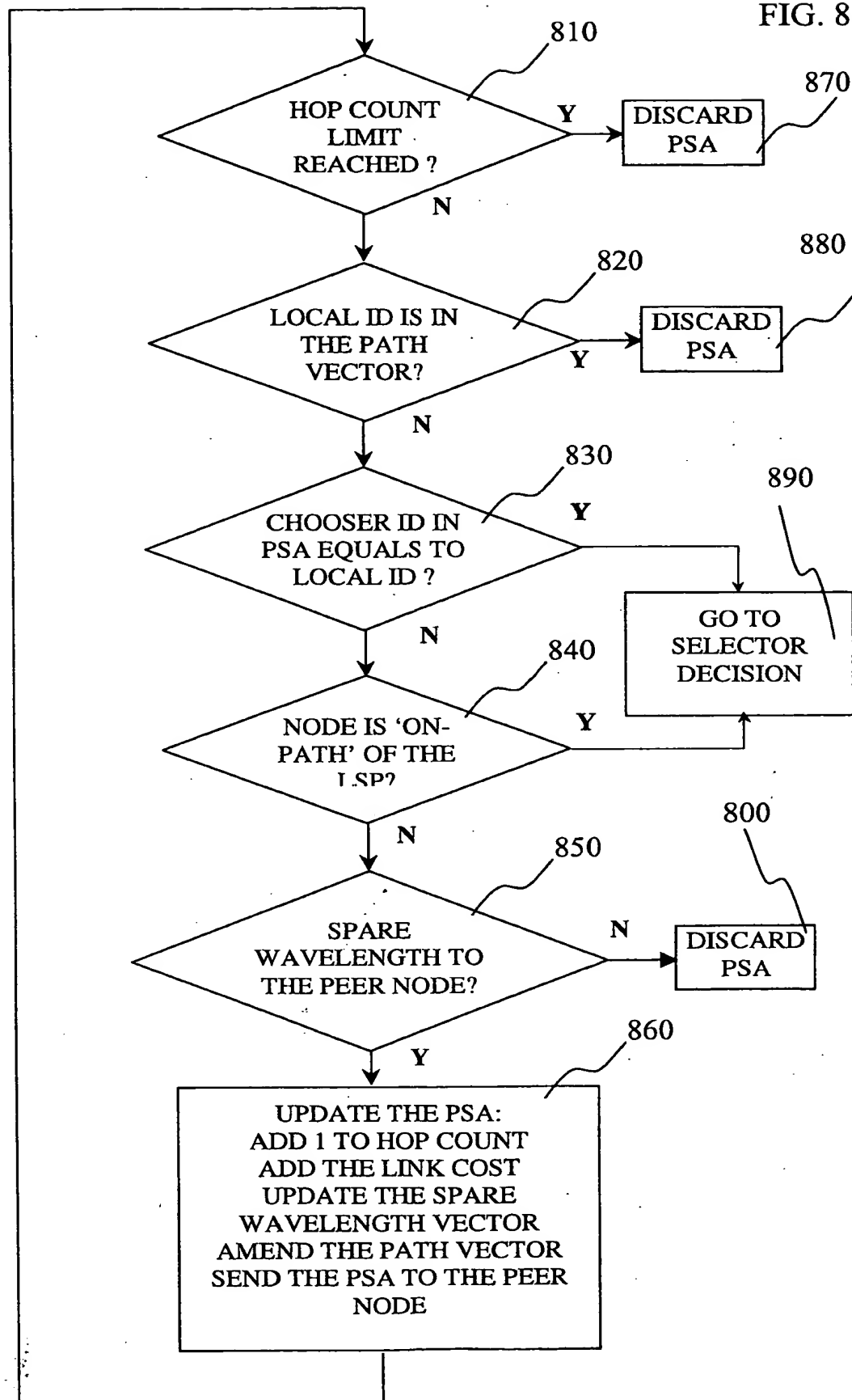
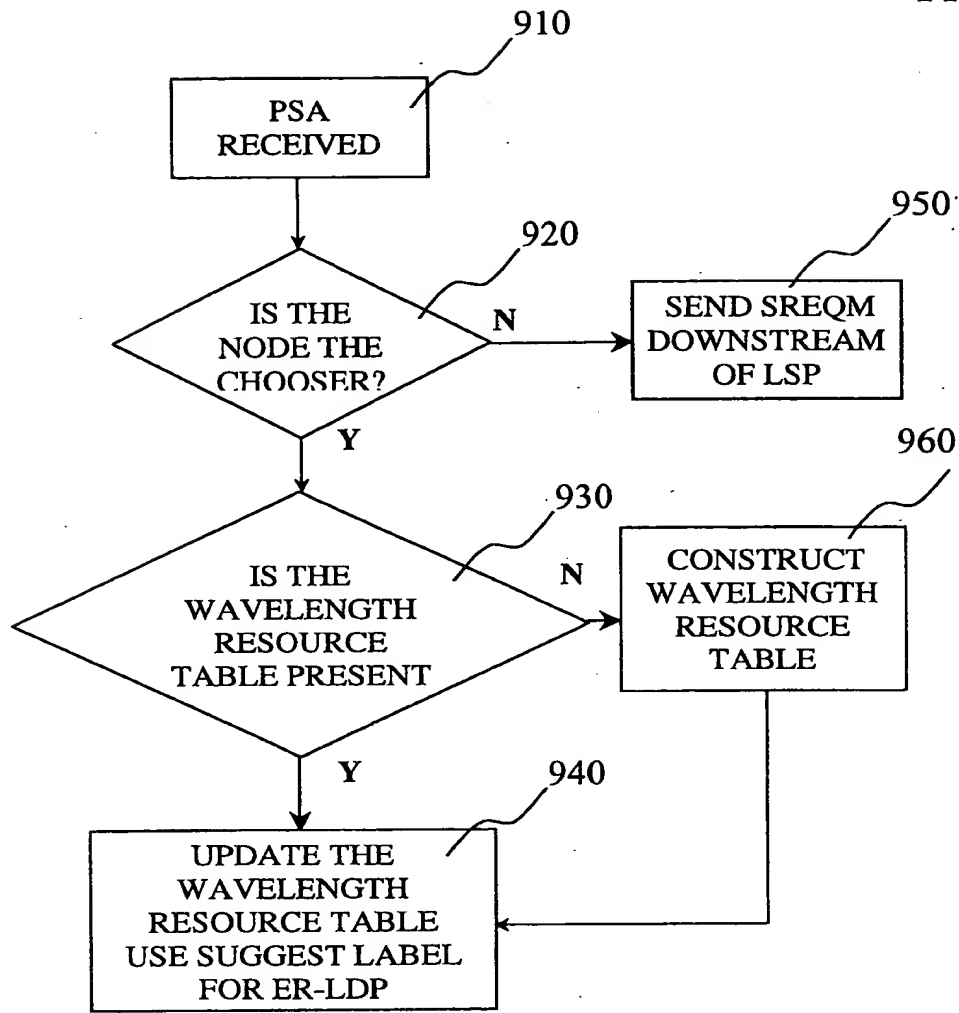


FIG. 9



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FIG. 10

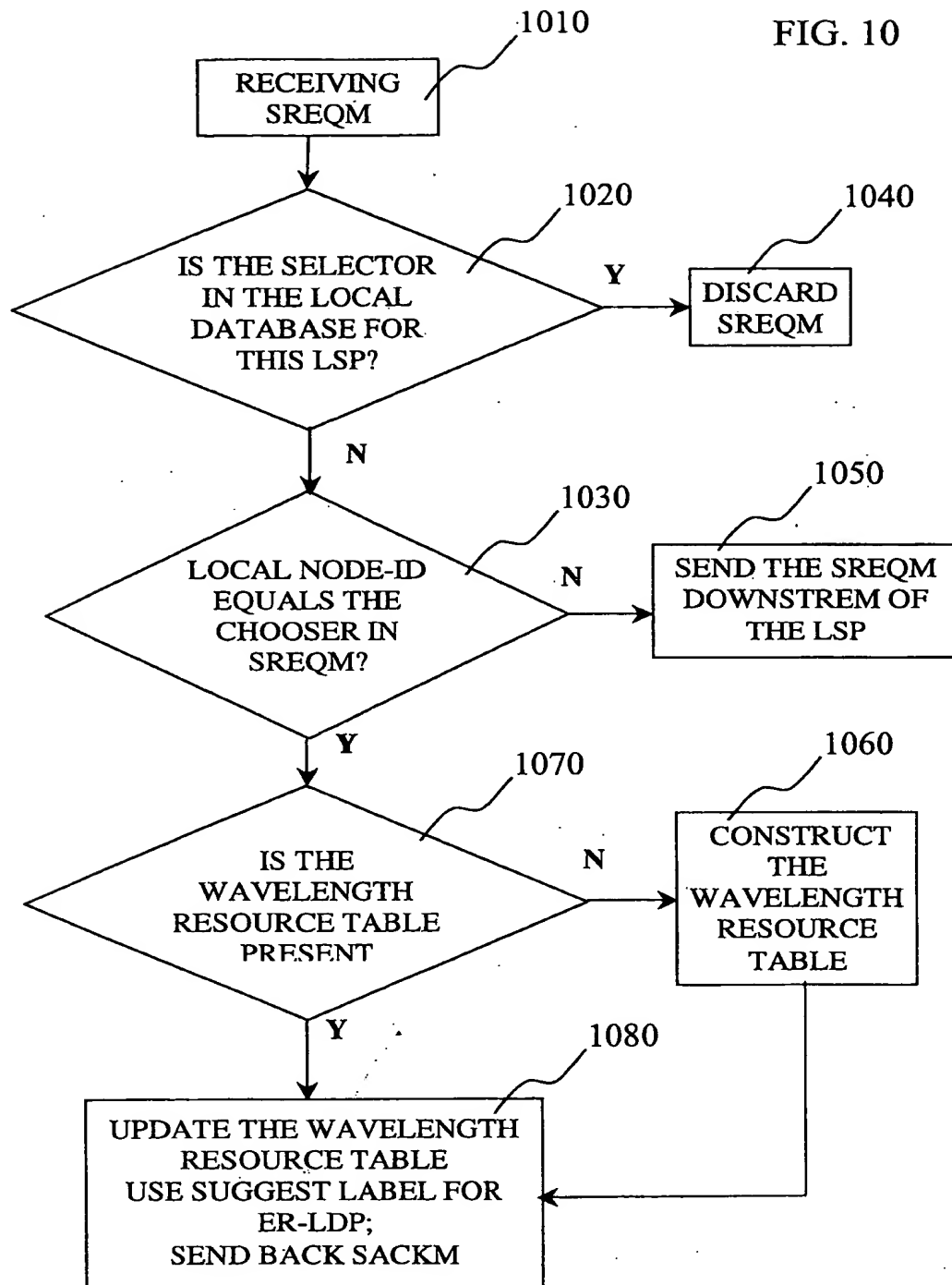


FIG. 11

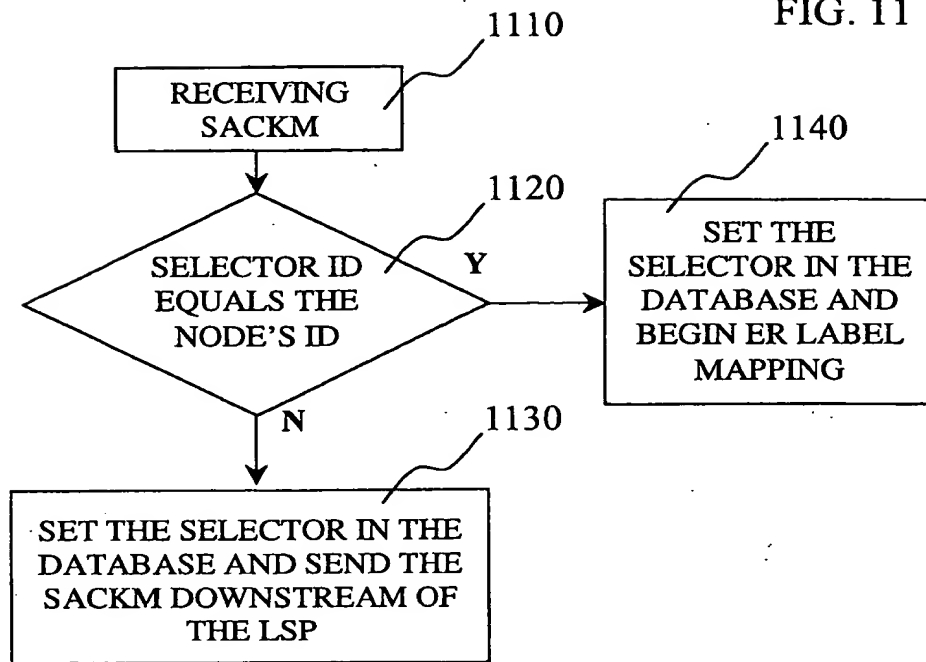


FIG. 12

